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in shady woods, Jacobson is quoted as follows: "It has the habit to suspend itself with the front legs from spiders' webs; when one of the fore legs are wanting, as frequently happens with these delicate flies, one of the middle legs is utilized. One sometimes sees twenty or more flies close together, suspended from a horizontally stretched spider's thread; they all bob up and down very rapidly, at the same time swaying to and fro, sometimes in unison and sometimes not. This comical rope-dance is continued for a long time. Because the tips of the legs are white they are very plainly visible, while the spider thread on which the flies hang is generally not visible, it appears as if they danced in the air and touched each other with the tips of their front legs." Doleschall, who first observed this curious dance, did not detect the spider threads, which was perhaps due to the fact that his observations were made inside of houses.<sup>1</sup> Jacobson, in the paper quoted above, comments on Doleschall's observation as follows: "If Doleschall describes the flying in a chain without mentioning the spider thread, this is due to incomplete observation. These *Dicranomyias* never form chains without being suspended from spider threads. These threads are however sometimes so fine that one can only see them from a definite position (so, for example, that they reflect the sunlight)."

Except in the case of the chironomid, no good reason is apparent for the presence of the insects on the spider webs. The habit certainly shows some adaptation. Possibly the web serves as a refuge where these insects may rest secure from other insects. Some explanation should be sought for the fact that these *Diptera* can frequent the webs without becoming entangled or being preyed upon by the owner.

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## NEW GALL MIDGES OR ITONIDÆ (DIPT.).

BY E. P. FELT,

ALBANY, N. Y.

Below we describe a number of new western forms received through the kindness of Prof. E. Bethel, Denver, Col., and of Mr. P. H. Timberlake, of the U. S. Bureau of entomology.

<sup>1</sup> *Natuurk. Tijdschr. Nederl. Indie*, Vol. 14, p. 390 (1857); quoted by Osten Sacken, *Berl. Ent. Zeitschr.*, Vol. 26, p. 88 (1882).

A new species of *Coquillettomyia* is characterized because it was taken by Mr. Knab on spider webs. It is worthy of note in this connection, that the New York *Coquillettomyia dentata* Felt has been taken in numbers on spider webs at Newport, N. Y., both sexes being captured. A species of *Clinodiplosis* probably undescribed, occurs commonly on spider webs in the vicinity of Washington, D. C., according to Mr. Knab. Recent collecting in the vicinity of Albany shows that a species of *Aphidoletes* may occur commonly on spider webs, returning freely when driven therefrom, the latter indicating this to be a normal habit. A female, *Dasyneura* species, was also captured with the *Aphidoletes*. The light, delicate midges make so little disturbance in alighting upon and leaving the web that the spider appears to ignore them entirely.

***Coccidomyia erii*, new species.**

*Male*.—Length 1.75 mm. Antennæ nearly as long as the body, sparsely haired, yellowish brown; 14 segments, the fifth with a stem three fourths the length of the cylindric basal enlargement, which latter has a length twice its diameter; terminal segment produced, with a length  $3\frac{1}{2}$  times its diameter. Palpi; first segment short, irregular, the second tapering, with a length over thrice its diameter. Mesonotum yellowish brown. Scutellum, postscutellum and abdomen mostly fuscous yellowish. Wings hyaline, costa light straw. Halteres yellowish transparent. Legs pale straw. Genitalia; basal clasp segment long, stout, terminal clasp segment short, swollen. Other organs indistinct.

*Female*.—Length 1 mm. Antennæ extending to the base of the abdomen, sparsely haired, light straw; 12 segments, the fifth cylindric, subsessile, with a length one half greater than its diameter; terminal segment produced, narrowly oval, with a length about  $2\frac{1}{2}$  times its diameter. Palpi; first segment subquadrate, the second broadly oval. Mesonotum yellowish brown. Scutellum and postscutellum fuscous yellowish, the abdomen yellowish white. Halteres and legs pale straw. Claws long, slender, unidentate, the pulvilli as long as the claws. Ovipositor as long as the body, the lobes narrowly oval and sparsely setose. Type Cecid a2340.

This small midge was reared in November, 1911, by Mr. P. H. Timberlake from *Artemisia californica* infested with *Erium lichten-sioides* Ckll. upon which the midge larvæ were presumably predaceous. The material was collected along the Casitas pass road back of Carpinteria, Ventura county, California. This species is easily separated from the allied *C. pennsylvanica* Felt by the sessile antennal segments of the female.

**Oligotrophus betheli, new species.**

*Gall*.—Length 7 mm., brown, fleshy, conical and containing an orange or yellowish larva in a central cavity some 3 mm. long.

*Female*.—Length 1.5 mm. Antennæ hardly extending to the base of the abdomen, sparsely haired, pale yellowish, variably tinged with red; 14 sessile segments, the fifth with a length one half greater than its diameter and with a basal whorl of moderately long, stout spines; terminal segment slightly produced, with a length nearly twice its diameter. Palpi; first segment subglobose, the second narrowly oval, with a length about twice its diameter, the third about three fourths the length of the second, narrowly oval. Mesonotum yellowish orange, variably tinged with reddish. Scutellum yellowish orange, postscutellum reddish orange. Abdomen deep red, the distal segments yellowish. Wings hyaline, costa light straw. Halteres yellowish basally, slightly fuscous apically. Coxæ pale yellowish, femora and tibiae fuscous, the yellowish tarsi a variable fuscous, the posterior tarsi somewhat lighter. Claws slender, simple, the pulvilli distinctly longer than the claws. Ovipositor short, stout, the terminal lobes broadly oval and sparsely setose.

*Male*.—Length 1.5 mm. Antennæ with 14 segments, the fifth probably subsessile and with a length about twice its diameter. Genitalia; basal clasp segment short, stout; terminal clasp segment moderately long, stout, slightly curved. Other characters indistinct. Described from a nearly matured fly in the puparial envelope.

Exuviae whitish transparent, antennal sheaths short, stout; wing pads short, stout, the leg cases extending to the third abdominal segment. Type Cécid a2303.

This species was reared June 25, 1912, from a fleshy, apical, conical gall on *Juniperus utahensis* collected by Prof. E. Bethel at McCoy, Col., June 18. The relatively longer antennal segments and the much lighter color differentiate this species from *O. betulæ* Winn.

**Janetiella coloradensis, new species.**

*Gall*.—Length 4 to 5 mm., diameter 3 mm. This is a more or less regular, oval swelling at the base of the needles, containing near the center, a smooth, oval cell some 3 mm. long.

*Larva* (dried).—Length 1 mm., broadly oval, yellowish orange. Head broad, moderately well chitinized. Antennæ tapering, uniarticulate. Skin smooth. Breastbone indistinct.

*Female*.—Length 1.5 mm. Antennæ extending to the second abdominal segment, sparsely haired, probably light brown; 16 sessile segments, the fifth cylindric, with a length  $2\frac{1}{2}$  times its diameter and with a sparse whorl of short hairs subbasally and near the middle; terminal segment reduced, broadly oval. Palpi; first and second segments stout, subglobose, the third slender, with a length five times its width, the fourth three fourths the length of the third, somewhat dilated. Mesonotum brownish black, the submedian lines sparsely

haired. Scutellum yellowish, postscutellum yellowish brown. Abdomen yellowish orange, the yellowish ovipositor nearly as long as the body, the terminal lobes narrowly oval, setose. Wings hyaline, costa light straw. Halteres yellowish. Coxæ dark brown; femora and tibiæ pale straw, the tarsi mostly fuscous straw, the pulvilli fully as long as the simple, moderately stout claws. Type Cecid a2287.

The female described above was reared by Prof. E. Bethel, Denver, Col., from oval swellings at the base of pine needles. This species can not be identical with *Cecidomyia pinirigidæ* Pack., since the latter has 14 pedicellate antennal segments, while the form characterized has 16 sessile segments. It may be identical with an eastern species forming similar galls on the scrub pine, *Pinus virginiana* and bearing the name *C. brachyteroides* O. S., an invalid designation, zoologically speaking, since there is no description of an insect, and not even undoubted evidence that Osten Sacken saw the larva responsible for the injury. This species is allied to *J. nodosa* Felt and *J. americana* Felt, the short distal palpal segment separating it from the latter and the color of the abdomen differentiating it from the former.

***Asteromyia grindeliæ*, new species.**

*Larva*.—Length 2.5 mm., narrowly oval, probably yellowish orange. Head small, broadly rounded. Antennæ short, stout; breastbone short, broad, indistinctly tridentate, the middle tooth broadly rounded, the lateral tooth very broadly and irregularly triangular; shaft stout, densely chitinated and expanded anteriorly and posteriorly; segmentation indistinct; posteriorly broadly rounded; skin coarsely shagreened.

*Male*.—Length 2.25 mm. Antennæ not extending to the base of the abdomen, sparsely haired, black; 13 segments, the fifth with a length equal to its diameter. Palpi; the one segment is narrowly oval. Mesonotum black, the submedian lines with grayish scales and pubescence. Abdomen with the four basal segments blackish, the three remaining, yellowish; dorsum sparsely covered with a mixture of black and gray scales; venter with grayish scales. Genitalia yellowish brown. Wings hyaline, the third vein uniting with costa a little beyond the middle. Halteres yellowish transparent, the club fuscous basally. Coxæ and femora blackish; tibiæ and tarsi reddish brown. Claws moderately slender, strongly curved, unidentate, the pulvilli about as long as the claws. Genitalia; dorsal plate broad, deeply and roundly emarginate, the lobes narrowly rounded and sparsely setose; ventral plate short, broadly rounded. Harpes moderately long with a stout, quadrate, chitinous tooth apically. Color characters from Timberlake. Type Cecid a2319.

This midge was reared July 27, 1911, from blister leaf galls on *Grindelia robusta* collected by P. H. Timberlake near Santa Barbara,

Cal. This species is easily separated from *A. modesta* Felt by the coloration of the abdomen and the uniarticulate palpi.

***Lasioptera verbenæ*, new species.**

*Larva*.—Length 2.5 to 3.5 mm., rather slender, deep orange. Head moderate sized, with slender antennæ having a length thrice the diameter; breast bone large, blackish red, tridentate, the median tooth shorter, the shaft well chitinated and with lateral processes anteriorly and posteriorly; posterior extremity narrowly rounded, finely shagreened.

*Male*.—Length 1.5 mm. Antennæ hardly extending to the base of the abdomen, sparsely haired, reddish; 14 segments, the fifth with a length one-fourth greater than its diameter, the terminal one reduced. Palpi; first segment irregular, the second subquadrate, with a length nearly thrice its diameter, the third a little longer than the second, the fourth one third longer than the third, somewhat dilated. Mesonotum black, submedian lines clothed with brownish and brownish white scales. Scutellum covered with white scales. Abdomen black with five submedian white spots, venter suffused with white scales. Wings hyaline, the third vein uniting with the anterior margin near the middle. Tibiæ and tarsi fuscous, the first tarsal segment and the base of the other segments on the posterior legs white, the other legs with the tarsal segments narrowly annulate with whitish basally. Claws moderately stout, strongly curved, unidentate, the pulvilli shorter than the claws. Genitalia; dorsal plate deeply and narrowly incised, the lobes broadly rounded and sparsely setose; ventral plate long, narrowly rounded. Harpes subtriangular, strongly chitinated.

*Female*.—Length 2 mm. Antennæ extending to the base of the abdomen, sparsely haired, black; 20 segments, the fifth with a length three fourths its diameter; terminal segment somewhat produced, with a length 2 to 2½ times its diameter. Palpi; first segment irregular, the second with a length 2½ times its diameter, the third as long as the second, somewhat dilated, the fourth a little longer than the third, dilated. Mesonotum fuscous, margined with white scales, the submedian lines ornamented with brownish scales. Scutellum fuscous. Abdomen fuscous with submedian silvery spots posteriorly on the first to fourth or fifth abdominal segments. Similar spots laterally occur on the second to fifth segments. Halteres yellowish white, reddish basally. Legs black, the first tarsal segment and the basal portion of the second to fourth tarsal segments on the hind legs white. Ovipositor when extended about as long as the abdomen, the terminal lobes lanceolate, with a length fully three times the diameter and thickly setose. Coloration after Timberlake. Type Cecid a2313.

This fly was reared from cylindric enlargements of the flower stalks of *Verbena prostrata* collected by P. H. Timberlake, November 13, 1910, in the Puente Hills, Whittier, Cal. November 30 one gall was full of healthy larvæ evidently hibernating in silken tubes at-

tached to the walls of the gall. This species is separated from *L. hecate* Felt by the shorter distal palpal segment.

***Lasioptera diplaci*, new species.**

*Larva*.—Length 2 mm. moderately stout, salmon colored. Head moderate. Antennæ slender, with a length  $3\frac{1}{2}$  times the diameter; breastbone tridentate, the median tooth small, the shaft distinct and expanded anteriorly and posteriorly. Skin coarsely shagreened; posterior extremity narrowly rounded.

*Female*.—Length 2.5 mm. Antennæ extending to the base of the abdomen, sparsely haired, black; 18 segments, the fifth with a length three fourths its diameter; terminal segment somewhat produced, with a length 2 to  $2\frac{1}{2}$  times its diameter. Palpi; first segment subquadrate, the second narrowly oval, with a length over twice its diameter, the third one half longer than the second, slender, the fourth a little longer and more slender than the second. Mesonotum black, submedian lines with sparse fuscous hairs. Scutellum fuscous whitish on the margins. Abdomen black, segments 1 to 6 with submedian oval, white spots posteriorly; venter suffused with white scales. Ovipositor stout, brownish, when extended nearly as long as the abdomen, the terminal lobes narrowly oval, with a length about thrice the width and thickly setose. Wings hyaline, the third vein uniting with costa near the middle. Legs black, the first and the base of the second to fifth tarsal segments white. Claws slender, strongly curved, unidentate, the pulvilli as long as the claws. Colors from Timberlake. Type Cecid a2314.

This midge was reared November 24, 1910, from ovoid stem enlargements on *Diplacus longiflorus* collected by P. H. Timberlake in the Puente Hills, Whittier, Cal. This species is closely allied to the preceding.

***Asphondylia diplaci*, new species.**

*Gall*.—This is a cabbage-like, densely woolly, apical growth of modified leaves having a diameter of about 14 mm.

*Exuviae*.—Length 4.5 mm., moderately stout; cephalic horns short, obliquely truncate and indistinctly dentate; antennal cases extremely long, leg cases extending to the fifth abdominal segment, wing cases to the third; dorsum of abdominal segments with three well developed transverse rows of stout, chitinous spines, the anterior two somewhat irregular, anteriorly a rudimentary fourth; terminal segment with 4 submedian pair of moderate sized stout spines and two pair of larger lateral spines.

*Male*.—Length 4.5 mm. Antennæ probably nearly as long as the body, sparsely haired, blackish; 14 segments, the third with a length five times its diameter, the fifth with a length four times its diameter. Palpi; first segment short, irregular, the second with a length four times its diameter, the third slender and one-half longer than the second. Mesonotum grayish black. Scutellum reddish, abdomen grayish black with a grayish white pubescence. Wings hyaline, narrow, with a length  $2\frac{1}{2}$  times the width. Legs red, not

very pubescent or scaly. Claws long, slender, evenly curved, the pulvilli a little shorter than the claws. Genitalia; dorsal plate divided, the lobes broadly oval, densely setose; ventral plate deeply and triangularly emarginate, the lobes tapering, narrowly rounded and coarsely setose. Color characters from Timberlake. Type Cecid a2318.

Two dead specimens were removed from a cabbage-like apical growth on *Diplacus longiflorus* collected October 1, 1911, by P. H. Timberlake in the Puente Hills, Whittier, Cal. He also observed a female *Torymus* ovipositing in the gall. This species runs in our key near to *A. sambuci* Felt, from which it is easily separated by the narrow, sparsely haired wings.

***Asphondylia enceliæ*, new species.**

*Gall*.—Length 10 mm., diameter 4 mm., a leaf bud deformity with walls only about 1 mm. thick, each containing one large, light yellowish larva.

*Exuviae*.—Length 4 mm., stout, light brown. Leg cases extending to the fourth abdominal segment, wing cases to the third; the dorsum of each abdominal segment with one well developed transverse row of stout, chitinous spines posteriorly and anteriorly two irregular, shorter rows of similar spines; the posterior segment with one median and two pair (sometimes three pair with no median spine) of submedian moderate sized, chitinous spines and two large lateral spines.

*Female*.—Length 4 mm. Antennæ nearly as long as the body, sparsely haired, light brown; 14 segments, the third with a length 7 times its diameter, the fifth with a length 5 times its diameter. Palpi; first segment short, irregular, second with a length  $2\frac{1}{2}$  times its diameter, the third long, distinctly tapering, with a length twice the preceding. Face light brown. Mesonotum gray, the submedian lines dark gray. Scutellum dark gray, with a whitish pubescence. Abdomen fuscous, the contents reddish and clothed with a dense, grayish white, appressed pubescence; lobes of ovipositor blackish. Wings with a grayish pubescence, thus infuscated and with a length fully twice the width. Halteres orange colored, the club fuscous basally, the stalk light yellowish. Coxæ gray, the remainder of the legs brownish and covered with a short, white pubescence. Claws slender, strongly curved, simple, the pulvilli as long as the claws. Ovipositor when extended as long as the abdomen. Color characters after Timberlake. Type Cecid a2317.

Several specimens were reared February 23 and 25, 1911, from leaf bud galls on *Encelia californica* collected by P. H. Timberlake in the Puente Hills, Whittier, Cal. This species runs in our key to near *A. ilicoides* Felt, from which it is easily separated by the relatively much longer and narrower wings.

***Thecodiplosis zauschneriæ*, new species.**

*Gall*.—These are apical rosettes or loose cones of leaves occurring on



the dwarfed branches, the larvæ living within the center of the small folded leaves.

*Larva*.—Length 2.75 mm. moderately stout, probably yellowish orange. Head moderate, the antennæ short, stout; breastbone moderately well chitimized, broadly and triangularly emarginate, the lateral angles short and acute. Skin nearly smooth, posterior extremity broadly rounded and with two pair of obtuse, rather inconspicuous submedian tubercles.

*Male*.—Length 2.25 mm. Antennæ as long as the body, sparsely haired, light brown; 14 segments, the fifth having the stems with a length 2 and  $1\frac{1}{2}$  times their diameters, respectively; terminal segment slightly reduced, basal portion of the stem shorter than the basal enlargement, the distal enlargement subglobose and with a moderately long, stout appendage apically. Palpi; first segment subquadrate, the second probably nearly as long as the third, which latter has a length thrice its diameter, the fourth one fourth longer than the third and somewhat dilated. Mesonotum black, the submedian lines yellowish. Scutellum blackish brown, postscutellum and first abdominal segment blackish, the others yellowish brown. Abdomen sparsely clothed with long, blackish hairs. Wings hyaline, costa light brown. Legs including coxæ light yellowish brown, thickly clothed with black hairs. Claws moderately stout, strongly curved, the pulvilli longer than the claws. Genitalia; basal clasp segment stout, tapering; terminal clasp segment rather short, stout; dorsal plate short, broad, very deeply and triangularly emarginate, the lobes diverging, setose; ventral plate apparently very similar. Harpes somewhat chitimized.

*Female*.—Length 2.5 mm. Antennæ extending to the fourth abdominal segment, sparsely haired, light brown; 14 segments, the fifth with a stem one third the length of the subcylindric basal enlargement, which latter has a length three fourths greater than its diameter; terminal segment somewhat produced, with a length about thrice its diameter, irregular apically. Mesonotum fuscous, nearly black anteriorly, the submedian lines and posterior median area fuscous yellowish or reddish. Abdomen dark cherry red, sparsely haired on the posterior margins of the segments and laterally. Coxæ light brown. Legs light yellowish, the femora apically golden, the distal half of the front and the base of the middle and hind tibiæ, metatarsi and last tarsal segments covered with light-colored hairs. Ovipositor nearly as long as the body, moderately stout, the terminal lobes slender, tapering irregularly apically; color characters after Timberlake. Type Cecid a2311.

Several specimens of both sexes were reared in December, 1910, by Mr. P. H. Timberlake from rosette galls on *Zauschneria californica* collected in the Puente hills back of Whittier, Cal. The galls were reported as being abundant everywhere through the hills. This species is separated from *T. hudsonici* Felt by the longer basal portion of the stem of the fifth antennal segment and the relatively shorter fourth palpal segment.

***Clinodiplosis araneosa*, new species.**

*Male*.—Length 1.5 mm. Antennæ one half longer than the body, thickly haired, probably light brown; 14 segments, the fifth with the stems  $2\frac{1}{2}$  and 3 times their diameters, respectively; terminal segment produced, the basal portion of the stem with a length four times its diameter, the distal enlargement cylindric, with a length thrice its diameter and apically a long, slender, tapering process. Palpi; first segment irregularly fusiform, the second segment with a length about four times its diameter, the third a little longer and more slender, the fourth one fourth longer than the third, somewhat dilated. Mesonotum probably light brown. Scutellum and postscutellum probably fuscous yellowish. Abdomen probably yellowish brown. Wings hyaline, costa light straw. Halteres and legs yellowish straw. Claws slender, strongly curved, those of the anterior and mid legs unidentate, the pulvilli about one third the length of the claws. Genitalia; basal clasp segment long, stout; terminal clasp segment long, slender; dorsal plate broad, deeply and triangularly incised, the lobes obliquely truncate; ventral plate moderately broad, broadly emarginate, the lobes short and broad.

*Female*.—Length 2 mm. Antennæ extending to the fourth abdominal segment, thickly haired, yellowish brown; 14 segments, the fifth with a stem one half the length of the cylindric basal enlargement, which latter has a length  $2\frac{1}{2}$  times its diameter. Mesonotum reddish brown, the submedian lines yellowish. Scutellum pale yellowish, postscutellum light brown. Abdomen mostly yellowish brown, sparsely haired. Halteres pale yellowish. Legs light straw. Ovipositor about one half the length of the abdomen, the terminal lobes narrowly lanceolate, with a length about  $2\frac{1}{2}$  times the width. Type Cecid a2277.

A number of midges belonging to this species were received in 1912 from Mr. Frederick Knab accompanied by the statement that they occur commonly about Washington, D. C., on spider webs. The material studied was captured August 30 at Cabin John, Md. Allied to *C. caulicola* Coq., from which it may be separated by the short, broad lobes of the ventral plate.

***Coquillettomyia knabi*, new species.**

*Male*.—Length 1 mm. Antennæ twice the length of the body, rather thickly haired, light brown; 14 segments, the fifth having the stems with a length 3 and 4 times their diameters, respectively, the distal enlargement subcylindric, with a length about twice its diameter, the circumfili well developed, the loops of the distal filum attaining the apex of the segment. Palpi; first segment subglobose, the second with a length four times its diameter, swollen distally, the third one half longer than the second, slender, the fourth one fourth longer than the third, slightly dilated. Mesonotum slaty brown, the submedian lines and scutellum fuscous yellowish, postscutellum slightly darker, the abdomen sparsely white-haired, dark brown.

Wings hyaline, the third vein well beyond the apex. Halteres yellowish basally, fuscous apically, the legs fuscous yellowish, the distal tarsal segments somewhat darker; claws stout, strongly curved, the anterior unidentate, the pulvilli rudimentary. Genitalia; basal clasp segment slender, with a conspicuous, quadrate, thickly setose lobe basally; terminal clasp segment long; dorsal plate short, broadly and triangularly emarginate; ventral plate short, broad, broadly rounded, the distal third thickly short-spined. Harpes rather weakly chitinized; style long, the distal fourth slender, with about 12 feebly chitinized teeth.

*Female*.—Length 1.25 mm. Antennæ as long as the body, sparsely haired, dark brown; 14 segments, the fifth with a stem one fourth the length of the cylindric basal enlargement, which latter has a length  $2\frac{1}{2}$  times its diameter; the terminal segment cylindric, with a length seven times its diameter and apically a somewhat fusiform, stout process one third the length of the entire segment. Palpi; first segment with a length nearly thrice its diameter, the second one half longer, somewhat dilated, the third a little shorter than the second, more slender, the fourth one half the length of the third, more slender. Mesonotum reddish brown, the submedian lines indistinct. Scutellum and postscutellum yellowish brown. Abdomen sparsely haired, dark brown. The short ovipositor yellowish, the sparsely haired terminal lobes slender, with a length five times the width. Other characters nearly as in the male.

A number of males and females were captured on a spider web in a rain barrel at Port Limon, Costa Rica, September 24, 1905, by Frederick Knab. This undescribed form is provisionally referred to the above genus, though in certain respects it appears to closely approach *Feltiella* Rubs. It may be distinguished from *C. dentata* Felt by the dark brown abdomen and the quadrate basal process of the basal clasp segment.

***Karschomyia townsendi*, new species.**

*Male*.—Length 1.75 mm. Antennæ one fourth longer than the body, thickly haired, light straw; 14 segments, the fifth having each stem with a length  $3\frac{1}{2}$  times its diameter, the distal enlargement subcylindric, with a length one half greater than its diameter and a very thick whorl of long, strongly curved, slender setæ, circumfli well developed; terminal segment, basal portion of the stem with a length 7 times its diameter, the distal enlargement greatly produced, tapering distally, with a length four times its diameter and apically a long, finger-like process. Palpi; first segment subquadrate, the second with a length over thrice its diameter, the third a little longer and more slender than the second, the fourth one fourth longer than the third. Mesonotum fuscous yellowish orange. Scutellum, postscutellum and abdomen yellowish orange. Genitalia somewhat fuscous. Wings hyaline, costa light straw. Halteres yellowish transparent, slightly fuscous. Coxæ

yellowish orange. Legs mostly a nearly uniform light brown. Claws slender, strongly curved, the anterior and mid unidentate, the pulvilli rudimentary. Genitalia; basal clasp segment short, subquadrate; terminal clasp segment one half longer than the basal, distinctly swollen near the middle, strongly chitinized; dorsal plate broad, broadly and triangularly emarginate, the obtuse lobes setose; ventral plate narrow, greatly produced, narrowly rounded; setose apically. Harpes strongly chitinized.

*Female*.—Length 2 mm. Antennæ nearly as long as the body, sparsely haired, dark brown; 14 segments, the fifth with a stem three fourths the length of the basal enlargement, which latter has a length  $2\frac{1}{2}$  times its diameter; terminal segment produced, the cylindric basal enlargement with a length four times its diameter and apically with a long, moderately stout process, the latter greatly swollen basally. Palpi; first segment irregular, the second slender, with a length four times its diameter, the third nearly as long as the second, more slender, the fourth as long as the second, slender. Mesonotum reddish brown, the submedian lines yellowish orange. Scutellum fuscous yellowish, postscutellum and abdomen mostly yellowish orange. Ovipositor short, the terminal lobes broadly oval and sparsely setose, otherwise nearly as in the male. Type Cecid a2308.

The remarkable form described above was collected by Prof. C. H. T. Townsend in and near a tent in Montaña of the Province of Jaen, northern Peru, in September, 1911, Rio Charape. The elevation was about 5,000 feet and at the upper limits of the tropical rain-forest region. This species is tentatively referred to the above named genus because it runs thereto in our key and exhibits affinities therewith on account of the greatly produced ventral plate and the strongly chitinized harpes. The greatly produced stems of the flagellate antennal segments separate this species from *K. viburni* Felt.

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## THE HALIPLIDÆ OF NORTH AMERICA, NORTH OF MEXICO.

BY ROBERT MATHESON,

ITHACA, N. Y.

### Family HALIPLIDÆ.

1832. Dyticea, Tribus V, Erichson, Genera Dyt., p. 46. 1836. Hydrocanthares, Tribus Haliplides, Aubé, Icon. Col. Eur., V, p. 15. 1838. Hydrocanthares, Tribus Haliplides, Aubé, Species Col., VI, p. 2. 1837. Dytiscidæ, Gruppe Haliplini, Erichs, Käf. Mk. Brandbg., p. 183. 1859. Haliplidæ, Thoms.